

**Amendments to the Specification:**

A. Please replace the paragraph bridging pages 24 and 25 with the following amended paragraph:

--The genes of the VH and VL domains of the L19 antibody (specific for the ED-B domain of fibronectin { (Pini A, Viti F, Santucci A, Carnemolla B, Zardi L, Neri P, Neri D. Design and use of a phage display library. Human antibodies with subnanomolar affinity against a marker of angiogenesis eluted from a two-dimensional gel. J Biol Chem. (1998) 273:21769-21776)}, of the HyHEL-10 antibody (specific for hen egg lysozyme {(Neri, 1995)}; please note that an internal EcoRI site had previously been mutagenized without altering the protein sequence) and of other antibodies isolated from the ETH-2 library (Viti, 2000), are PCR amplified using the following pairs of primers, which code for a cysteine residue, appended at the C-terminal extremity of each V domain:

**L19 and ETH-2:**

**L19VH\_Eco\_fo**

TTT CAC ACA GAA TTC ATT AAA GAG GAG AAA TTA ACT ATG GAG GTG CAG CTG  
TTG GAG TCT (SEQ ID NO:1)

**L19VH\_Hind\_ba**

TCA ATC TGA TTA AGC TTA GTG ATG GTG ATG GTG ATG ACA TCC ACC ACT CGA  
GAC GGT GAC CAG GGT (SEQ ID NO:2)

**L19VL\_Eco\_fo**

TTT CAC ACA GCC TTG ATT AAA GAG GAG AAA TTA ACT ATG GAA ATT GTG TTG  
ACG CAG TCT CCA (SEQ ID NO:3)

**L19VL\_Hind\_ba**

TCA ATC TGA TTA AGC TTA GTG ATG GTG ATG GTG ATG ACA TCC ACC TTT GAT  
TTC CAC GGT GGT CCC TTG (SEQ ID NO:4)

**HyHEL-10:**

**HH10VH\_Eco\_fo**

TTT CAC ACA GAA TTC ATT AAA GAG GAG AAA TTA ACT ATG GAG GTG AAG  
CTG CAG CAG TCT (SEQ ID NO:5)

**HH10VH\_Hind\_ba**

TCA ATC TGA TTA AGC TTA GTG ATG GTG ATG GTG ATG ACA TCC ACC TGC AGA  
GAC AGT GAC CAG AGT (SEQ ID NO:6)

**HH10VL\_Eco\_fo**

TTT CAC ACA GAA TTC ATT AAA GAG GAG AAA TTA ACT ATG GAT ATT GTG CTA  
ACT CAG TCT CCA (SEQ ID NO:7)

**HH10VL\_Hind\_ba**

TCA ATC TGA TTA AGC TTA GTG ATG GTG ATG GTG ATG ACA TCC ACC TTT TAT  
TTC CAG CTT GGT CCC CCC (SEQ ID NO:8)--

B. Please replace the first full paragraph found on page 25 with the following amended paragraph:

--The resulting PCR products are subcloned, using standard molecular biology procedures, into the EcoRI/HindIII sites of plasmid pQE12 (Qiagen, Germany). The resulting plasmids code for V domains, which carry the following sequence at their C-terminus: -Gly-Gly-Cys-His-His-His-His-His (SEQ ID NO:25).--

C. Please replace the paragraph bridging pages 25 and 26 with the following amended paragraph:

--Representative sequence types are illustrated below. Please note that oligonucleotides of these families are capable of partial heteroduplex formation:

**L19:**

**L19\_5SH**

5-HS-GGA GCT TCT GAA TTC TGT GTG CTG CAT AAT CGA CAC GAA TTC CGC  
AGC-3' (SEQ ID NO:9)

**L19\_3SH**

5'-TCG CGA GGG GAA TTC GTC ATA TAT CAG CAC ACA GAA TTC AGA AGC TCC-  
SH-3' (SEQ ID NO:10)

**HyHEL-10:**

**HyHel10\_5SH**

5'-HS-GGA GCT TCT GAA TTC TGT GTG CTG CAG TGG CGA CAC GAA TTC CGC  
AGC-3' (SEQ ID NO:11)

**HyHel10\_3SH**

5'-TCG CGA GGG GAA TTC GTC ATA GGG CAG CAC ACA GAA TTC AGA AGC TCC-  
SH-3' (SEQ ID NO:12)

**Anti-GST (from ETH-2 library):**

**GST\_5SH**

5'-HS-GGA GCT TCT GAA TTC TGT GTG CTG CTG AGG CGA CAC GAA TTC CGC  
AGC-3' (SEQ ID NO:13)

**GST\_3SH**

5'-TCG CGA GGG GAA TTG GTC AAG AGG CAG CAC ACA GAA TTC AGA AGC TCC-  
SH-3' (SEQ ID NO:14)--

D. Please replace the second full paragraph found on page 27 with the following amended paragraph:

--The resulting bead preparation is then used as template for two separate PCR reactions, which amplify the (L19\_5SH, HyHel10\_5SH, GST\_5SH) and (L19\_3SH, HyHel10\_3SH, GST\_3SH) oligonucleotides (see above), using oligos:

**1AB\_PCRfo**

5'-GGA GCT TCT GAA TTC TGT GTG CTG-3' (SEQ ID NO:15)

**1APCRba**

5'-GCT GCG GAA TTC GTG TCG-3' (SEQ ID NO:16)

**1B\_PCRba**

5'-TCG CGA GGG GAA TTC GTC-3' (SEQ ID NO:17).

E. Please replace the second paragraph found on page 28 with the following amended paragraph:

--Two sub-libraries are constructed as follows:

A sub-library "A" is created, by coupling n compounds to the 3' extremity of n different DNA oligonucleotides. Among the many different possible implementations, a convenient one is represented by the coupling of iodoacetamido- or maleimido-derivatives of n chemical entities to individual DNA oligonucleotides, which carry a thiol group at the 3' end. The coupling can easily be performed at room temperature in PBS (50 mM phosphate buffer + 100 mM NaCl, pH=7.4), by simple mixing of the thiol-bearing oligonucleotide (typical concentration range: 10-100  $\mu$ M) with a molar excess of iodoacetamido- or maleimido-derivative (typical concentration range: 50-500  $\mu$ M), followed by chromatographic purification of the DNA-chemical entity adduct. The thiol-containing oligonucleotides can be purchased from commercial suppliers. Each of them contains a constant sequence portion (e.g., 5'-XXXXXCAGCACACAGAAUCAGAAGCTCC-3') (SEQ ID NO:18) capable of heteroduplex formation with members of sub-library B (see below). The DNA sequence portion XXXXX at the 5' end is (at least in part) different in each member of the sub-library A, therefore acting as a code.--

F. Please replace the paragraph bridging pages 28 and 29 with the following amended paragraph:

--Similarly, a sub-library "B" is created, by coupling **m** compounds to the 5' extremity of **m** different DNA oligonucleotides. Coupling of iodoacetamido- or maleimido-derivatives of **m** chemical entities to individual DNA oligonucleotides, which carry a thiol group at the 5' end, is performed similar to what described for sub-library "A". Such oligonucleotides can be purchased from commercial suppliers. Each of them contains a constant sequence portion (e.g., 5'-GGAGCTTCTGAATTCTGTGTGCTGYYYYY-3') (SEQ ID NO:19) capable of heteroduplex formation with members of sub-library A (see above). The DNA sequence portion YYYYY at the 3' end is (at least in part) different in each member of the sub-library B, therefore acting as a code.--

G. Please replace the second full paragraph found on page 30 with the following amended paragraph:

-- As an example of model oligonucleotides A and B which can be used for the generation of a PCR product, which carries both code A and B, is provided below:

**typeB\_oligo**

Chemical entity B - 5'-GCA TAC CGG AAT TCC CAG CAT AAT GAT CGC TAT CGC TGC-3' (SEQ ID NO:20)

**typeA\_oligo (d = d-Spacer element)**

5'-CGT CAG CTG GAA TTC TCC ATA TAT GCA GCG ATA GCG ATG DDD DDD CTG  
GGA ATT CCG GTA TGC-3'- chemical entity A (SEQ ID NOS:21 and 26)

**CodeABfo**

5'-GCA TAC CGG AAT TCC CAG-3' (SEQ ID NO:22)

**CodeABba**

5'-CGT CAG CTC GAA TTC TCC-3' (SEQ ID NO:23)--

H. Please replace the paragraph bridging pages 37 and 38 with the following amended paragraph:

--For example, the chemical moiety **p** will be coupled to the 5' end of oligonucleotide 5' - 5'-GGA GCT TCT GAA TTC TGT GTG CTG-3' (SEQ ID NO:15). It will then be convenient to chemically couple, in individual reactions, many different chemical moieties **q** at the 3' end of oligonucleotides, of general sequence 5' - XX.....XX - Y - CAG CAC ACA GAA TTC AGA AGC TCC - 3' (SEQ ID NO:24), whereas:

- the XX.....XX portion will be different for the different compounds;
- Y represents a biotinylated base analogue;
- the sequence 5' -CAG CAC ACA GAA TTC AGA AGC TCC- 3' (SEQ ID NO:26) will be identical in all cases, allowing the heteroduplex formation with the sequence 5' - GGA GCT TCT GAA TTC TGT GTG CTG- 3' (SEQ ID NO:15), chemically coupled to **p**, for all members of the ensemble of molecules **q**.--

Please replace the paper copy of the Sequence Listing, submitted January 17, 2006, with accompanying paper copy of the Sequence Listing, page numbers 1-8, at the end of the application.